

# MARINE POLLUTION: ON LONG ISLAND

## GIRL SCOUT TROOP 2847 SLIVER AWARD

### PLASTIC POLLUTION

The majority of pollution in the ocean is plastic pollution, and it is estimated that the mass of plastic in the oceans can be as high as 100,000 tons, or 220,462,280 lbs. One of the type of plastic pollution is Microplastics. Microplastics are tiny pieces of plastic that have been degraded over time into small amounts, they are also found in personal care products. When we throw

these things out they can end up in our oceans. These colorful plastics are in abundance in our oceans, and are often eaten by small fish. These fish cannot digest the plastic. Due to this they do not become hungry and they can't eat any more. Since the plastic does not provide any nutrients the fish will eventually die.

### OIL SPILL



### WHAT ARE WE DOING TO HELP?

Long island has many programs to help stop or slow marine pollution. One of these programs is the Billion Oyster Project. Their goal is to save the Long Island oyster population. Oysters are natural water filters so they will immensely help with cleaning out Long Island's oceans. There are other organizations as well like the Cornell Cooperative Extension Marine Program, and the Project Steward Institute

## PREVENTION

The town of Huntington sewage plant has an eight step processes to make sure that unfiltered sewage stays out of our waters.

1. Bar Screening. This process removes all solid pieces of sewage.
2. Screening. This process removes all the small pieces of sewage.
3. Primary Clarifier. This process removes the sludge.
4. Aerataion. This process removes the Nitrogen from the water
5. Secondary Clarifier. This process removes active bacteria.
6. Chlorination. This process kills any remaining bacteria.
7. Water Testing. This process makes sure that the water is safe to consume.
8. Effluent Disposal. The water is reintroduced into the environment.

## LIQUID POLLUTION

One type of liquid pollution is phenols. Some polluted wastewater that ends up in the ocean, can contain phenolic compounds, which are synthesized by companies and are found in agricultural, domestic, and industrial waste. These compounds are highly toxic, and can result in muscle tremors, a delayed onset of puberty, when consumed in drinking water. Chlorophenol poisoning also causes mouth burning, throat burning and necrotic lesions in the mouth, stomach and esophagus. Due to runoff a lot of things spilt onto streets as well as pesticides get washed into ground water or flow into streams, rivers, or the Long Island sound. These things can also end up in sewage and could seep into water sources. Most of these liquids have harmful chemicals in them that can harm sea life by causing ocean acidification. Which causes chemical imbalance in the ecosystem

Eight Stages of the Wastewater Process

